

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | |
|---|---|--|
| Applicant's or agent's file reference PLATYPUS-09693 | FOR FURTHER ACTION <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small> | |
| International application No. PCT/US04/37656 | International filing date (day/month/year) 10 November 2004 (10.11.2004) | (Earliest) Priority Date (day/month/year) 10 November 2003 (10.11.2003) |
| Applicant PLATYPUS TECHNOLOGIES, LLC | | |

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the Report**

a. With regard to the language, the international search was carried out on the basis of:



the international application in the language in which it was filed.



a translation of the international application into _____, which is the language

of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.



Certain claims were found unsearchable (See Box No. II)

3. Unity of invention is lacking (See Box No. III)

4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. _____



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.

b.

none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/37656

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 73
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
Claim 73 is not listed in the claims.

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of any additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/37656

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12M 1/34; C12N 11/12; C12Q 1/02; GO1N 21/00, 27/00
US CL : 422/57, 58, 82.01; 435/29, 179, 287.9, 288.5

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 422/57, 58, 82.01; 435/29, 179, 287.9, 288.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
West, Chem Abstracts

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | WO 00/50570 A2 (UNIVERSITY OF BRITISH COLUMBIA) 31 August 2000 (31.08.2000), see page 1 lines 20-24, page 4 last paragraph bridging to page 5, page 19 | 1-72 and 74-97 |
| Y | WO 99/63329 A1 (THE REGENTS OF THE UNIVERSITY OF CALIFORNIA) 09 December 1999 (09.12.1999), see the abstract. | 1-72 and 74-97 |
| Y | US 2002/0172621 A1 (BARBERA-GUILLEM) 21 November 2002 (21.11.2002), see paragraph 35. | 1-72 and 74-97 |
| Y | US 2002/0173033 A1 (HAMMERICK et al.) 21 November 2002 (21.11.2002), see paragraphs 83, 102. | 1-72 and 74-97 |
| Y | US 6,596,545 B1 (WAGNER et al.) 22 July 2003 (22.07.2003), see column 1 last full paragraph, column 3 lines 40-50, column 8. | 1-72 and 74-97 |
| A, E | US 2004/0224380 A1 (CHOU et al.) 11 November 2004 (11.11.2004), see paragraphs 151, 219, 234, 242, 259, 298, 314, 436, 440. | 1-72 and 74-97 |
| Y, P | US 2004/0002131 A1 (KIM et al.) 01 January 2004 (01.01.2004), see paragraph 23. | 1-72 and 74-97 |
| Y, P | US 2004/0142411 A1 (KIRK et al.) 22 July 2004 (22.07.2004), see paragraphs 49, 52, 57, 94, 101, 110, 131. | 1-72 and 74-97 |

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search

11 October 2005 (11.10.2005)

Date of mailing of the international search report

13 DEC 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (571) 273-3201

Authorized officer

Ralph Gitomer

Telephone No. (571) 272-1600

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
J. MITCHELL JONES
MEDLEN & CARROLL, LLP
101 HOWARD STREET, SUITE 350
SAN FRANCISCO, CA 94105

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

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|---|--|---|-------------|
| | | Date of mailing (day/month/year) | 13 DEC 2005 |
| Applicant's or agent's file reference PLATYPUS-09693 | | FOR FURTHER ACTION See paragraph 2 below | |
| International application No. | International filing date (day/month/year) | Priority date (day/month/year) | |
| PCT/US04/37656 | 10 November 2004 (10.11.2004) | 10 November 2003 (10.11.2003) | |
| International Patent Classification (IPC) or both national classification and IPC IPC(7): C12M 1/34; C12N 11/12; C12Q 1/02; GOIN 21/00, 27/00 and US Cl.: 422/57, 58, 82.01; 435/29, 179, 287.9, 288.5 | | | |
| Applicant PLATYPUS TECHNOLOGIES, LLC | | | |

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

| | | |
|--|---|--|
| Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201 | Date of completion of this opinion 11 October 2005 (11.10.2005) | Authorized officer <i>J. Roberts for</i> Ralph Gitomer Telephone No. (571) 272-1600 |
|--|---|--|

Form PCT/ISA/237 (cover sheet) (April 2005)